

Notice of Allowability

Application No.

10/701,412

Examiner

Katherine W. Mitchell

Applicant(s)

REINHART ET AL.

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/1/2005.
2. ☒ The allowed claim(s) is/are 33-37 and 39-43.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 12/1/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20060119.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Katherine Mitchell
Primary Examiner



EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Randall Heald on Jan 20, 2006.
3. The application has been amended as follows:

In the Claims:

Claim 33 has been amended to delete the comma ",", immediately after "comprising" in line 1 and replace it with a colon --:--.

Claim 33 has been amended to delete the "from" immediately after "membrane formed" in line 2 and replace it with --of--.

Claim 37 has been amended to delete the "from" immediately after "membrane is formed" and replace it with --of-- , and to delete the word "corn" in line 2.

New claims 39-43 have been added:

Claim 39. (new). The reactive system of claim 34, comprising

- a) 6.4-10.6 wt.% zero-valent iron particles;
- b) 1.0-1.8 wt.% surfactant;
- c) 32-53 wt.% oil; and
- d) 36-59 wt.% water.

Claim 40. (new) The reactive system of claim 34, comprising:

- a) 8.5 wt.% zero-valent iron particles:
- b) 1.4 wt.% surfactant;
- c) 42.7 wt.% oil; and
- d) 47.4 wt.% water.

Claim 41. (new) The reactive system of claim 34, wherein said plurality of zero-valent iron particles is a plurality of nanoscale zero-valent iron particles or a plurality of microscale zero-valent iron particles.

Claim 42. (new) The reactive system of claim 41, wherein said plurality of nanoscale zero-valent iron particles are each 100-300 nm in diameter.

Claim 43. (new) The reactive system of claim 41, wherein said plurality of microscale zero-valent iron particles are each 1-3 microns in diameter.

4. The following is an examiner's statement of reasons for allowance: Applicant's Affidavits and arguments are persuasive. The originally-filed application clearly shows the amended micelle structure, and the closest prior art of record, Chang et al, the DNAPLS paper, or Proposal #990094, fail to teach or makes obvious the hydrophobic emulsion micelle containing zero-valent metal particle reactants as described.

5. Double patenting rejections over 10/410907 were considered, but not made in view of the claim amendments including the micelle composition of the pending application and the bimetallic particles of 10/410907.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

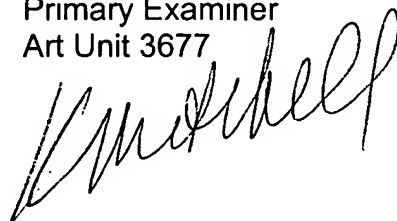
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwm
1/19/2006

Katherine W Mitchell
Primary Examiner
Art Unit 3677

A handwritten signature in black ink, appearing to read 'K. Mitchell', is written over the printed name and title of the examiner.